Should you write by hand or type up your notes? Here’s how writing methods affect learning and memory

Typing may be faster than writing by hand, but it's less stimulating for the brain, according to research published [January 26] in the journal Frontiers in Psychology.

After recording the brain activity of 36 university students, researchers at the Norwegian University of Science and Technology determined that handwriting might improve learning and memory.

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“Our main finding was that handwriting activates almost the whole brain as compared to typewriting, which hardly activates the brain as such. The brain is not challenged very much when it’s pressing keys on a keyboard as opposed to when it’s forming those letters by hand,” said Audrey van der Meer, the study’s co-author and a neuropsychology professor at NTNU.

In particular, the study found that writing by hand required communication between the brain’s visual, sensory and motor cortices. People who wrote with the digital pen had to visualize letters, then use their fine motor skills to control their movement when writing.

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But so far, there's mixed evidence as to whether taking notes on paper versus a laptop can help people remember and understand information better in the classroom or raise their performance on tests.

It’s also hard to know whether or how the brain activity in the new study might translate into real-life improvements in learning or memory, said Ramesh Balasubramaniam, a neuroscientist at the University of California, Merced, who wasn’t involved in the research.

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